

National Compensation Survey: Occupational Wages in the United States, 1997



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Summary 99-7

Average hourly earnings for all private industry and State and local government workers were \$15.09 in 1997. This summary presents the first release of aggregated national earnings data from the National Compensation Survey (NCS) for:

- Total civilian economy, private industry, and State and local government
- Worker characteristics including occupational detail
- Establishment characteristics
- Geographic areas

NCS provides comprehensive measures of occupational earnings, compensation cost trends, and details of benefit provisions.¹ When fully integrated, the NCS will encompass wages as well as benefit costs and provisions. The focus of this summary is occupational earnings.

Data in this summary are a subset of the occupational earnings data tabulated for the National Compensation Survey. Table 1 highlights the major types of data available for the total economy, private industry and State and local government. Table 2 shows similar data by metropolitan and nonmetropolitan area. Table 3 provides data for specific occupations for all workers, as well as full-time and part-time workers.

Average hourly earnings for private industry workers were lower than for State and local government workers, averaging \$14.39 per hour and \$17.82 per

hour, respectively. Part of this difference can be explained by differences in the occupational and industrial mix of the two sectors. For example, professional specialty and technical occupations are proportionately more prevalent in State and local government than in private industry. With the exception of the construction industry, few State and local government workers are in goods-producing industries.

Worker characteristics. Earnings varied by occupational group; full-time and part-time status; union and non-union status; and time and incentive pay. White-collar pay was the highest, averaging \$18.59 per hour. In comparison, blue-collar pay averaged \$12.36 per hour, and service occupations averaged \$9.09 per hour.

Among occupations, average hourly earnings ranged from \$27.00 for executive, administrative, and managerial workers to \$9.09 for service workers. Similarly, there were differences between occupations within occupational groups. (See table 3.)

Earnings were higher for full-time than part-time workers, averaging \$15.77 per hour and \$8.89 per hour, respectively. This difference reflects, in part, the occupational composition of the two groups. NCS classifies workers as full-time or part-time based on the employer's classification of the occupation.

Pay was also higher for union workers (\$16.91 per hour) than for non-union workers (\$14.56 per hour). Incentive workers (whose wages are based at least partially on productivity payments such as piece rates, commissions, and production bonuses) earned, on average, \$16.21 per hour. In contrast, time workers (whose wages are based solely on an hourly rate or salary) earned \$15.05 per hour.

¹NCS integrates data from three BLS programs – the Occupational Compensation Survey (OCS), the Employment Cost Index (ECI), and the Employee Benefits Survey (EBS). OCS provided data on occupational earnings; the ECI measures changes in labor costs as well as the average hourly employer costs for employee compensation. The EBS provides information on detailed benefit provisions.

Establishment characteristics. Earnings varied by size of the establishment, industry,² and geographic area. Average hourly earnings ranged from \$12.52 in establishments employing between 50 and 99 workers to \$19.32 in those with 2,500 or more workers. In private industry, earnings averaged \$15.45 per hour in goods-producing industries compared to \$13.85 per hour in service-producing industries.

Geographic area. In metropolitan areas pay averaged \$15.73 per hour, compared to \$11.84 per hour in nonmetropolitan areas. By geographic region, average hourly earnings ranged from \$17.42 in the Middle

² Data collection of industry classification for State and local government does not permit estimates for goods-producing and service-producing industries.

Atlantic region to \$11.88 in the East South Central region.

Additional occupational earnings data. More detailed information on occupational average hourly earnings will be published later this year in the national bulletin. It will include data by:

- Major industry division (such as construction, wholesale trade)
- Additional establishment characteristics
- Occupational detail
- Occupational earnings by work level
- Top 10 metropolitan areas³

³ Data for the next top 10 metropolitan areas will be available on the Internet in late 1999.

Table 1. Mean hourly earnings¹ and weekly hours by selected worker and establishment characteristics, private industry and State and local government, United States,² National Compensation Survey, August 1997

Worker and establishment characteristics, and geographic areas	Total			Private industry			State and local government		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ³ (percent)		Mean	Relative error ³ (percent)		Mean	Relative error ³ (percent)	
Total	\$15.09	0.6	36.5	\$14.39	0.7	36.4	\$17.82	0.7	36.5
Worker characteristics:									
White-collar occupations	18.59	.6	36.7	18.08	.8	36.8	20.08	.8	36.4
Professional specialty and technical ...	22.89	.6	36.3	22.30	.7	36.6	23.84	.8	35.9
Executive, administrative, and managerial	27.00	.9	40.1	27.86	.8	40.5	23.95	1.9	38.6
Sales	12.78	3.5	33.0	12.80	3.5	33.0	11.13	4.7	33.1
Administrative support	11.53	.6	36.9	11.54	.7	37.1	11.50	.9	36.3
Blue-collar occupations	12.36	.8	38.3	12.24	.8	38.4	13.78	1.2	37.3
Precision production, craft, and repair Machine operators, assemblers, and inspectors	15.86	1.2	39.8	15.88	1.3	39.8	15.71	1.6	39.6
Transportation and material moving ...	11.03	1.1	39.6	11.02	1.1	39.6	12.89	6.1	38.3
Handlers, equipment cleaners, helpers, and laborers	13.24	1.2	37.5	13.30	1.4	38.3	12.93	1.7	33.6
Service occupations	9.34	1.0	35.5	9.18	1.0	35.2	11.37	2.1	38.3
Full time ⁴	9.09	.8	33.0	7.51	.6	31.9	13.26	1.3	36.6
Part time ⁴	15.77	.6	39.6	15.12	.7	39.8	18.20	.8	38.9
Union	8.89	1.1	21.0	8.37	1.2	21.4	12.27	1.4	19.2
Nonunion	16.91	.9	36.9	14.90	1.3	37.1	19.74	1.0	36.7
Time ⁵	14.56	.7	36.3	14.29	.8	36.3	16.20	.9	36.4
Incentive ⁵	15.05	.6	36.4	14.31	.7	36.4	17.82	.7	36.5
	16.21	2.7	38.3	16.21	2.7	38.3	—	—	—
Establishment characteristics:									
Goods producing	(⁶)	(⁶)	(⁶)	15.45	1.0	39.8	(⁶)	(⁶)	(⁶)
Service producing	(⁶)	(⁶)	(⁶)	13.85	.9	34.9	(⁶)	(⁶)	(⁶)
50-99 workers ⁷	12.52	1.2	35.3	12.44	1.3	35.3	13.96	3.6	36.1
100-499 workers	13.68	.7	36.2	13.32	.8	36.3	16.89	1.4	35.6
500-999 workers	16.15	1.5	37.4	15.66	1.7	37.8	18.20	1.8	35.7
1000-2499 workers	15.54	6.8	36.7	14.91	8.5	36.9	17.51	1.9	35.9
2500 workers or more	19.32	.9	37.2	20.21	1.6	37.0	18.57	1.0	37.4
Geographic areas:⁸									
Metropolitan	15.73	.7	36.3	15.06	.8	36.3	18.46	.8	36.5
Nonmetropolitan	11.84	1.2	37.1	10.84	1.4	37.2	15.07	1.8	36.5
New England	16.96	1.8	35.1	16.29	2.1	35.0	20.14	2.1	35.2
Middle Atlantic	17.42	1.5	35.7	16.47	1.7	35.8	21.25	1.5	35.5
East North Central	15.45	.9	36.2	14.85	1.0	36.3	18.51	1.3	35.8
West North Central	14.44	1.8	36.3	13.70	2.2	36.2	17.24	.8	36.8
South Atlantic	13.73	1.4	37.0	13.20	1.8	36.7	15.47	1.4	37.9
East South Central	11.88	2.3	37.8	11.34	2.5	38.0	15.22	1.7	36.9
West South Central	13.82	1.0	37.2	13.45	1.2	37.0	14.96	1.3	37.8
Mountain	14.04	1.9	36.5	12.97	2.6	36.4	17.42	1.9	36.5
Pacific	16.88	1.5	36.2	15.89	1.8	36.4	20.23	1.7	35.5

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

² This survey only covers the 48 contiguous States.

³ The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate. For more information about RSEs see the Technical Note.

⁴ Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment.

⁵ Wages of time workers are based solely on hourly rate or salary; incentive workers are those whose wages are at least partially based on productivity payments such as piece rates, commissions, and production bonuses.

⁶ Classification of establishments into goods-producing and service-producing industries applies to private industry only.

⁷ Establishments classified with 50-99 workers may contain establishments with fewer than 50 workers due to staff reductions from the time of sampling to data collection.

⁸ Data are presented for metropolitan and nonmetropolitan area divisions as well as nine Census area divisions. Metropolitan areas can be a Metropolitan Statistical Area (MSA) or Consolidated Metropolitan Statistical Area (CMSA) as defined by the Office of Management and Budget, 1994. Nonmetropolitan areas are counties that do not fit the definitions above. See Technical Note for list of States in each Census area division.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria.

Table 2. Mean hourly earnings¹ and weekly hours by selected worker and establishment characteristics, metropolitan and nonmetropolitan areas,² United States,³ National Compensation Survey, August 1997

Worker and establishment characteristics, and geographic areas	Total			Metropolitan areas			Nonmetropolitan areas		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁴ (percent)		Mean	Relative error ⁴ (percent)		Mean	Relative error ⁴ (percent)	
Total	\$15.09	0.6	36.5	\$15.73	0.7	36.3	\$11.84	1.2	37.1
Private Industry	14.39	.7	36.4	15.06	.8	36.3	10.84	1.4	37.2
State and local government	17.82	.7	36.5	18.46	.8	36.5	15.07	1.8	36.5
Worker characteristics:									
White-collar occupations	18.59	.6	36.7	19.07	.8	36.6	15.15	1.2	37.0
Professional specialty and technical ...	22.89	.6	36.3	23.34	.6	36.3	19.63	1.2	36.5
Executive, administrative, and managerial	27.00	.9	40.1	27.40	1.0	40.1	23.15	2.6	39.7
Sales	12.78	3.5	33.0	13.55	2.2	32.6	8.72	4.5	35.3
Administrative support	11.53	.6	36.9	11.73	.7	36.9	10.10	1.5	37.4
Blue-collar occupations	12.36	.8	38.3	12.78	.7	38.2	10.74	2.1	38.8
Precision production, craft, and repair Machine operators, assemblers, and inspectors	15.86	1.2	39.8	16.44	.8	39.7	13.27	4.5	39.9
Transportation and material moving ...	11.03	1.1	39.6	11.39	1.0	39.6	10.04	2.7	39.7
Handlers, equipment cleaners, helpers, and laborers	13.24	1.2	37.5	13.46	1.2	37.6	11.85	4.2	36.7
Service occupations	9.34	1.0	35.5	9.48	1.1	35.1	8.81	2.0	37.0
	9.09	.8	33.0	9.40	1.0	32.6	8.00	1.5	34.5
Full time ⁵	15.77	.6	39.6	16.51	.7	39.6	12.15	1.3	39.7
Part time ⁵	8.89	1.1	21.0	9.01	1.2	21.1	8.09	1.5	20.6
Union	16.91	.9	36.9	17.32	.6	36.7	14.20	4.5	38.1
Nonunion	14.56	.7	36.3	15.25	.8	36.2	11.32	1.4	36.8
Time ⁶	15.05	.6	36.4	15.69	.7	36.3	11.87	1.2	37.0
Incentive ⁶	16.21	2.7	38.3	16.87	2.5	38.2	10.74	11.4	38.8
Establishment characteristics:									
Goods producing ⁷	15.45	1.0	39.8	16.40	.8	39.8	12.06	2.3	39.9
Service producing ⁷	13.85	.9	34.9	14.44	1.0	34.9	9.77	1.3	35.2
50-99 workers ⁸	12.52	1.2	35.3	13.02	1.3	35.3	10.23	2.6	35.3
100-499 workers	13.68	.7	36.2	14.10	.8	36.1	11.78	1.7	36.5
500-999 workers	16.15	1.5	37.4	16.65	1.4	37.2	14.29	3.2	38.2
1000-2499 workers	15.54	6.8	36.7	17.03	1.9	36.0	10.91	15.8	38.6
2500 workers or more	19.32	.9	37.2	19.34	.9	37.2	18.23	8.8	39.3
Geographic areas:⁹									
New England	16.96	1.8	35.1	17.42	1.8	35.2	13.75	5.3	34.0
Middle Atlantic	17.42	1.5	35.7	17.75	1.3	35.7	12.22	7.4	36.1
East North Central	15.45	.9	36.2	15.90	1.0	36.2	12.98	1.3	36.4
West North Central	14.44	1.8	36.3	15.40	2.2	36.3	11.82	3.7	36.2
South Atlantic	13.73	1.4	37.0	14.17	1.7	36.9	11.56	4.0	37.4
East South Central	11.88	2.3	37.8	13.60	1.6	37.0	10.22	3.7	38.7
West South Central	13.82	1.0	37.2	14.13	1.2	37.2	11.88	4.0	37.3
Mountain	14.04	1.9	36.5	14.17	2.4	36.4	13.51	2.4	36.6
Pacific	16.88	1.5	36.2	17.06	1.5	36.2	13.37	2.9	36.1

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

² Metropolitan areas can be a Metropolitan Statistical Area (MSA) or Consolidated Metropolitan Statistical Area (CMSA) as defined by the Office of Management and Budget, 1994. Nonmetropolitan areas are counties that do not fit the definitions above.

³ This survey only covers the 48 contiguous States.

⁴ The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a

sample estimate. For more information about RSEs see the Technical Note.

⁵ Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment.

⁶ Wages of time workers are based solely on hourly rate or salary; incentive workers are those whose wages are at least partially based on productivity payments such as piece rates, commissions, and production bonuses.

⁷ Classification of establishments into goods-producing and service-producing industries applies to private industry only.

⁸ Establishments classified with 50-99 workers may contain establishments with fewer than 50 workers due to reduction in staff from the time of sampling to data collection.

⁹ See Technical Note for list of States in each Census area division.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
All	\$15.09	0.6	36.5	\$15.77	0.6	39.6	\$8.89	1.1	21.0
All excluding sales	15.26	.6	36.7	15.83	.6	39.6	9.29	1.1	21.0
White collar	18.59	.6	36.7	19.28	.6	39.5	11.35	1.4	20.9
White collar excluding sales	19.43	.6	37.3	19.81	.6	39.4	13.83	1.3	20.6
Professional specialty and technical	22.89	.6	36.3	23.20	.6	39.0	18.87	1.2	19.1
Professional specialty	24.70	.6	36.2	25.00	.6	38.9	20.63	1.4	18.5
Engineers, architects, and surveyors	27.76	.8	40.3	27.76	.8	40.4	27.87	11.3	23.1
Architects	23.93	6.6	39.9	23.94	6.8	40.6	—	—	—
Aerospace engineers	30.44	3.8	40.0	30.44	3.8	40.0	—	—	—
Metallurgical and materials engineers	26.51	4.8	40.2	26.51	4.8	40.2	—	—	—
Mining engineers	29.69	5.0	32.6	29.26	6.5	41.9	—	—	—
Petroleum engineers	35.44	6.4	40.8	35.44	6.4	40.8	—	—	—
Chemical engineers	30.65	2.9	39.9	30.65	2.9	39.9	—	—	—
Nuclear engineers	34.16	3.4	40.5	34.16	3.4	40.5	—	—	—
Civil engineers	26.17	2.0	40.1	26.19	2.0	40.2	—	—	—
Electrical and electronic engineers	29.24	1.1	40.3	29.25	1.1	40.3	—	—	—
Industrial engineers	24.49	3.4	40.5	24.52	3.4	40.6	—	—	—
Mechanical engineers	25.37	2.2	40.2	25.34	2.2	40.4	30.28	17.2	19.5
Engineers, n.e.c.	29.00	1.1	40.4	28.97	1.1	40.5	34.57	9.5	23.5
Surveyors and mapping scientists	19.65	7.9	39.3	19.75	8.4	39.6	—	—	—
Mathematical and computer scientists	26.96	1.5	39.9	26.92	1.5	40.0	32.72	28.3	28.5
Computer systems analysts and scientists	26.79	1.2	40.0	26.82	1.3	40.1	21.76	11.2	27.0
Operations and systems researchers and analysts	28.15	6.4	39.6	27.73	6.6	39.9	47.18	30.4	30.7
Actuaries	27.00	7.2	39.2	27.00	7.2	39.2	—	—	—
Statisticians	24.22	5.5	37.6	24.22	5.5	37.6	—	—	—
Mathematical scientists, n.e.c.	22.67	14.8	38.8	22.67	14.8	38.8	—	—	—
Natural scientists	24.31	2.1	40.0	24.40	2.1	40.5	20.09	10.4	25.8
Physicists and astronomers	37.31	10.4	40.8	37.31	10.4	40.8	—	—	—
Chemists, except biochemists	27.44	3.7	40.4	27.57	3.7	40.7	—	—	—
Atmospheric and space scientists	25.05	11.5	46.3	25.05	11.5	46.3	—	—	—
Geologists and geodesists	25.07	8.8	41.8	26.04	8.8	41.8	—	—	—
Physical scientists, n.e.c.	26.30	3.0	39.8	26.31	3.0	39.9	—	—	—
Agricultural and food scientists	21.93	6.0	40.3	21.49	5.3	40.7	—	—	—
Biological and life scientists	21.00	6.2	39.8	21.00	6.3	40.4	—	—	—
Forestry and conservation scientists	17.14	6.2	40.2	17.14	6.2	40.2	—	—	—
Medical scientists	21.43	5.8	38.5	21.31	6.0	39.8	24.35	10.8	20.9
Health related	21.83	.8	34.0	21.82	.9	39.4	21.88	1.5	20.8
Physicians	38.80	4.4	39.1	37.49	4.7	43.1	56.57	4.5	17.4
Dentists	37.45	8.6	31.8	36.73	10.5	39.5	—	—	—
Health diagnosing practitioners, n.e.c.	24.01	13.7	35.9	24.27	14.6	40.0	—	—	—
Registered nurses	20.11	.6	33.3	20.01	.7	39.0	20.47	1.4	21.0
Pharmacists	26.20	1.3	34.8	26.59	1.4	40.2	24.33	5.2	21.3
Dietitians	16.42	2.3	36.0	16.04	2.2	39.6	19.59	6.5	20.5
Respiratory therapists	16.88	1.3	33.0	16.97	1.5	39.3	16.47	1.9	18.3
Occupational therapists	21.67	4.4	35.0	21.33	5.1	39.2	23.97	6.9	20.3
Physical therapists	24.08	2.3	34.3	23.60	2.5	39.6	26.14	3.6	21.9
Speech therapists	22.83	2.7	34.0	22.35	3.0	38.0	27.11	7.8	17.5
Therapists, n.e.c.	15.64	2.3	36.6	15.52	2.3	39.3	16.71	8.3	22.5
Physicians' assistants	23.28	6.1	34.6	24.47	5.1	39.6	14.87	23.7	18.3
Teachers, college and university	32.46	1.6	33.7	32.94	1.7	39.1	26.96	4.1	13.1
Earth, environmental, and marine science teachers	32.06	9.1	38.0	32.00	9.2	39.2	—	—	—
Biological science teachers	32.51	8.6	37.5	32.50	9.2	41.4	32.62	19.5	16.5
Chemistry teachers	34.70	8.3	40.4	34.97	8.5	42.0	—	—	—
Physics teachers	40.36	13.5	37.0	40.38	13.6	37.8	—	—	—
Natural science teachers, n.e.c.	38.83	5.1	36.8	40.23	4.7	38.9	—	—	—
Psychology teachers	29.89	6.7	35.3	30.24	6.9	38.2	21.76	7.7	12.7
Economics teachers	50.79	15.4	43.3	50.79	15.4	43.3	—	—	—
History teachers	30.81	5.7	32.3	31.52	5.8	38.2	21.43	15.2	10.5
Political science teachers	33.67	8.5	36.2	33.37	8.8	38.8	—	—	—
Sociology teachers	32.31	10.6	34.9	32.68	10.6	39.0	—	—	—
Social science teachers, n.e.c.	32.84	8.0	37.4	32.93	8.3	39.1	30.03	10.2	15.3

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
White collar –Continued									
Professional specialty and technical –Continued									
Professional specialty –Continued									
Teachers, college and university –Continued									
Engineering teachers	\$33.26	9.6	40.1	\$33.92	10.2	44.6	\$25.17	23.7	17.7
Mathematical science teachers	32.49	5.2	31.7	33.17	5.5	38.7	24.84	8.7	10.5
Computer science teachers	26.49	11.0	29.8	29.96	9.6	39.0	21.46	6.6	22.2
Medical science teachers	39.76	5.1	36.6	38.52	5.7	41.9	49.66	14.4	18.2
Health specialties teachers	30.90	3.9	35.2	31.46	4.0	39.6	21.52	6.4	12.3
Business, commerce, and marketing teachers ..	32.56	6.3	33.8	32.89	6.7	38.6	22.94	9.2	7.5
Agriculture and forestry teachers	41.94	24.8	35.2	41.94	24.8	35.2	–	–	–
Art, drama, and music teachers	28.63	3.5	32.4	29.30	3.8	38.7	23.14	6.8	14.0
Physical education teachers	25.60	12.4	32.6	26.01	13.4	38.1	20.45	27.8	11.7
Education teachers	29.81	9.8	34.9	30.70	10.1	40.6	15.62	11.0	10.8
English teachers	31.01	4.6	32.9	31.40	4.8	37.3	25.13	7.1	11.7
Foreign language teachers	24.76	12.0	33.0	25.43	14.1	41.7	20.82	25.3	14.9
Law teachers	56.07	10.5	34.1	58.67	11.0	38.3	20.65	10.6	13.7
Social work teachers	28.88	4.3	31.2	29.68	3.9	39.3	–	–	–
Theology teachers	38.63	8.6	36.8	38.74	8.6	38.8	26.43	16.0	5.7
Trade and industrial teachers	24.59	3.9	34.3	24.96	4.0	37.9	19.87	7.4	15.6
Teachers, post secondary, subject not specified	30.95	7.5	31.9	32.03	8.0	37.7	19.33	7.7	12.1
Teachers, post secondary, n.e.c.	31.10	3.0	31.3	31.43	3.3	38.1	27.93	6.8	11.6
Teachers, except college and university	25.62	.9	34.4	26.07	1.0	36.9	16.19	3.0	14.6
Prekindergarten and kindergarten	19.31	3.9	34.8	19.78	4.0	37.3	13.52	18.9	19.4
Elementary school teachers	26.38	1.1	36.3	26.43	1.1	36.8	22.37	7.4	17.8
Secondary school teachers	26.66	1.6	36.8	26.66	1.6	37.2	26.34	8.0	20.6
Teachers, special education	27.12	2.2	35.9	27.21	2.2	36.3	22.67	14.5	22.8
Teachers, n.e.c.	26.16	2.6	29.4	27.36	2.7	36.1	17.37	6.2	12.5
Substitute teachers	10.10	4.0	14.6	10.21	7.6	31.6	10.08	4.6	13.0
Vocational and educational counselors	23.24	4.2	36.8	23.36	4.3	37.9	19.92	12.3	19.7
Librarians, archivists, and curators	20.25	3.0	36.4	20.57	3.1	38.3	15.66	4.7	21.3
Librarians	20.60	3.3	36.5	20.95	3.4	38.2	15.86	4.8	22.9
Archivists and curators	17.94	8.9	35.8	18.11	9.2	39.0	–	–	–
Social scientists and urban planners	21.73	3.3	36.9	21.77	3.3	39.1	21.01	13.2	20.3
Economists	23.28	5.1	39.8	23.18	5.1	40.1	–	–	–
Psychologists	22.82	5.0	34.6	23.14	4.9	38.2	20.24	12.9	19.8
Sociologists	16.56	2.8	39.3	16.56	2.8	39.3	–	–	–
Social scientists, n.e.c.	13.41	15.9	38.4	13.30	15.9	39.3	–	–	–
Urban planners	20.56	4.5	39.5	20.59	4.5	39.6	–	–	–
Social, recreation, and religious workers	15.17	1.4	37.3	15.20	1.4	39.2	14.57	3.4	19.7
Social workers	15.38	1.4	37.6	15.40	1.5	39.1	15.08	3.9	20.8
Recreation workers	12.61	3.9	32.8	12.74	4.3	39.4	11.86	8.4	16.9
Clergy	12.01	15.5	41.8	11.51	19.9	48.1	18.23	19.2	15.8
Religious workers, n.e.c.	20.66	4.2	33.8	20.89	4.2	39.8	15.52	10.3	7.8
Lawyers and judges	34.83	3.1	39.9	35.03	3.1	41.7	28.13	8.2	16.1
Lawyers	34.48	3.2	40.2	34.66	3.3	41.8	28.49	8.9	17.1
Judges	41.56	7.5	34.2	42.62	6.8	39.9	24.83	32.8	10.5
Writers, authors, entertainers, athletes, and professionals, n.e.c.	21.34	2.7	36.9	21.70	2.8	39.8	16.17	9.8	18.0
Authors	30.53	33.8	30.8	22.66	27.8	40.0	–	–	–
Technical writers	20.00	3.8	38.6	20.03	3.9	39.9	19.40	10.8	22.2
Designers	20.70	4.6	39.9	20.84	4.6	40.4	14.34	20.7	25.5
Musicians and composers	41.23	15.8	16.5	44.45	20.7	29.0	35.63	25.3	9.4
Actors and directors	23.20	12.5	34.5	24.83	12.5	40.5	13.03	34.4	18.0
Painters, sculptors, craft artists, and artist printmakers	18.70	13.8	36.8	18.07	15.4	40.1	–	–	–
Photographers	15.95	7.2	39.3	16.00	7.3	40.1	–	–	–
Dancers	3.80	36.4	26.6	–	–	–	–	–	–
Artists, performers, and related workers, n.e.c.	13.31	11.4	26.1	15.43	16.2	37.6	11.28	13.5	20.2
Editors and reporters	22.03	4.9	38.9	22.21	5.0	39.4	14.65	15.9	24.9
Public relations specialists	20.00	5.0	38.0	20.16	5.3	39.9	16.65	13.8	18.9
Announcers	20.24	19.8	31.0	21.56	22.9	41.8	15.87	26.5	16.7
Athletes	26.42	31.6	25.1	32.15	34.4	40.9	10.90	10.0	12.3

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
White collar –Continued									
Professional specialty and technical –Continued									
Professional specialty –Continued									
Writers, authors, entertainers, athletes, and professionals, n.e.c. –Continued									
Professional, n.e.c.	\$23.39	3.6	38.7	\$23.39	3.7	39.7	\$23.31	17.4	22.1
Technical	16.66	.9	36.8	16.92	1.0	39.2	13.58	1.5	21.2
Clinical laboratory technologists and technicians	14.96	1.4	36.7	14.95	1.4	39.5	15.03	3.8	20.6
Dental hygienists	20.21	7.9	36.6	19.97	8.8	38.6	–	–	–
Health record technologists and technicians	11.69	3.2	34.7	11.57	3.5	39.1	12.54	6.2	19.5
Radiological technicians	16.30	1.3	33.5	16.21	1.4	39.6	16.67	3.4	20.8
Licensed practical nurses	12.56	.9	34.8	12.48	1.0	39.3	12.97	1.8	22.0
Health technologists and technicians, n.e.c.	12.92	1.5	34.9	13.13	1.6	39.8	11.49	2.5	19.1
Electrical and electronic technicians	17.73	1.8	39.6	17.76	1.8	40.1	15.45	17.6	22.1
Industrial engineering technicians	16.31	6.2	40.2	16.31	6.2	40.2	–	–	–
Mechanical engineering technicians	18.87	3.1	40.0	18.93	3.1	40.5	–	–	–
Engineering technicians, n.e.c.	18.09	1.8	39.4	18.11	1.8	39.8	17.55	10.4	29.7
Drafters	16.58	2.1	39.5	16.62	2.2	40.1	14.91	8.2	23.8
Surveying and mapping technicians	15.44	5.7	39.7	15.66	5.6	39.7	–	–	–
Biological technicians	14.86	4.6	37.5	15.19	4.5	39.9	10.04	7.7	19.9
Chemical technicians	17.17	2.5	39.6	17.20	2.5	39.9	–	–	–
Science technicians, n.e.c.	17.15	4.6	37.2	17.15	4.8	39.7	17.18	15.2	19.6
Airplane pilots and navigators	64.41	9.3	24.3	64.43	9.3	24.3	–	–	–
Broadcast equipment operators	17.09	12.4	36.1	18.33	11.9	39.5	7.33	11.6	21.6
Computer programmers	20.43	1.6	39.6	20.51	1.7	39.9	17.86	6.6	30.7
Tool programmers, numerical control	17.13	6.5	39.9	17.16	6.6	40.2	–	–	–
Legal assistants	16.15	3.1	39.3	16.29	2.7	39.6	11.09	2.2	30.6
Technical and related, n.e.c.	17.36	2.7	38.5	17.51	2.8	39.8	13.12	5.1	19.9
Executive, administrative, and managerial	27.00	.9	40.1	27.05	.9	40.4	21.38	4.6	19.7
Executives, administrators, and managers	30.85	1.0	40.4	30.90	1.0	40.8	24.28	6.8	17.4
Legislators	16.21	15.1	13.7	12.73	19.3	33.7	22.02	26.0	6.9
Chief executives and general administrators, public administration	51.16	20.5	40.4	51.16	20.5	40.4	–	–	–
Administrators and officials, public administration	24.87	2.6	38.9	24.89	2.6	39.7	23.36	20.2	15.0
Financial managers	32.44	2.3	40.4	32.46	2.3	40.5	24.02	17.5	20.9
Personnel and labor relations managers	31.39	3.3	40.8	31.43	3.3	41.0	–	–	–
Purchasing managers	29.43	4.1	41.0	29.43	4.1	41.0	–	–	–
Managers, marketing, advertising, and public relations	34.87	2.0	41.0	34.87	2.0	41.0	–	–	–
Administrators, education and related fields	30.10	1.9	39.0	30.17	1.9	39.5	24.23	14.6	19.8
Managers, medicine and health	28.57	2.3	39.5	28.60	2.3	39.9	26.48	8.9	22.7
Managers, food servicing and lodging establishments	16.93	3.2	43.0	16.96	3.2	43.2	–	–	–
Managers, properties and real estate	25.79	8.5	40.4	25.88	8.6	40.6	–	–	–
Managers, service organizations, n.e.c.	24.44	5.0	39.6	24.55	5.0	40.1	19.56	30.0	26.3
Managers and administrators, n.e.c.	33.00	1.3	41.2	33.00	1.3	41.3	30.75	11.5	22.2
Management related	20.97	1.0	39.6	21.00	1.0	39.9	18.15	4.2	23.1
Accountants and auditors	19.74	2.5	39.5	19.73	2.5	39.8	22.54	7.1	17.5
Underwriters	23.28	10.7	39.5	23.28	10.7	39.5	–	–	–
Other financial officers	23.54	2.9	39.8	23.58	2.9	40.0	16.71	18.7	25.0
Management analysts	23.65	3.6	39.9	23.63	3.6	40.1	26.01	6.0	25.2
Personnel, training, and labor relations specialists	19.96	1.6	39.7	20.02	1.6	40.0	16.05	9.0	27.4
Purchasing agents and buyers, farm products ..	19.68	4.8	39.9	19.68	4.8	39.9	–	–	–
Buyers, wholesale and retail trade, except farm products	23.08	7.5	40.6	23.12	7.5	40.9	–	–	–
Purchasing agents and buyers, n.e.c.	20.05	4.0	39.9	20.07	4.0	40.0	–	–	–
Business and promotional agents	18.58	7.8	39.6	18.58	7.8	39.6	–	–	–
Construction inspectors	19.54	3.9	39.4	19.61	3.9	40.1	16.62	20.0	22.3

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
White collar –Continued									
Executive, administrative, and managerial –Continued									
Management related –Continued									
Inspectors and compliance officers, except construction	\$18.70	3.2	39.1	\$18.73	3.2	39.4	–	–	–
Management related, n.e.c.	21.37	1.1	39.3	21.43	1.1	39.8	\$18.36	6.6	23.4
Sales	12.78	3.5	33.0	14.71	5.2	40.2	6.93	1.3	21.4
Supervisors, sales	18.23	2.3	40.8	18.40	2.3	41.3	10.11	16.6	25.2
Insurance sales	22.44	9.0	36.9	23.26	8.7	39.4	–	–	–
Real estate sales	33.95	21.9	40.3	34.36	21.7	40.7	–	–	–
Securities and financial services sales	34.66	11.8	38.8	35.35	11.7	40.4	–	–	–
Advertising and related sales	17.87	9.3	37.8	18.67	9.2	40.3	9.68	8.2	23.0
Sales, other business services	19.44	8.7	36.6	20.69	8.5	40.0	8.48	5.1	20.9
Sales engineers	27.60	5.5	41.5	27.60	5.5	41.5	–	–	–
Sales representatives, mining, manufacturing, and wholesale	23.54	3.3	41.0	23.58	3.3	41.1	–	–	–
Sales workers, motor vehicles and boats	16.89	3.6	44.0	16.92	3.6	44.2	–	–	–
Sales workers, apparel	8.10	3.9	26.4	9.13	4.6	38.4	7.13	4.3	20.4
Sales workers, shoes	10.03	10.1	28.9	11.45	11.1	39.2	7.59	11.3	20.0
Sales workers, furniture and home furnishings ..	10.29	9.3	30.2	12.53	7.1	39.4	6.78	7.4	22.1
Sales workers, radio, tv, hi-fi, and appliances ...	11.14	6.3	37.2	11.46	6.4	40.2	7.95	10.2	21.4
Sales workers, hardware and building supplies ..	10.56	5.9	37.2	11.06	6.7	40.1	8.11	3.4	27.3
Sales workers, parts	14.10	6.2	39.0	14.71	6.1	40.9	6.70	7.0	24.9
Sales workers, other commodities	10.05	4.3	30.3	11.63	5.4	39.2	6.94	1.3	20.9
Sales counter clerks	7.88	3.1	28.9	8.95	3.1	39.8	6.50	3.7	21.4
Cashiers	7.63	1.7	30.0	8.35	2.1	39.3	6.47	1.6	21.8
Street and door-to-door sales workers	15.71	23.8	27.8	21.01	25.8	38.3	8.60	6.3	20.3
News vendors	7.09	8.0	16.7	–	–	–	6.71	4.6	15.7
Demonstrators, promoters, and models, sales ...	8.70	6.5	22.3	11.73	6.4	39.1	6.93	1.8	17.8
Sales support, n.e.c.	11.55	5.5	36.5	11.99	6.2	40.0	8.50	5.5	22.7
Administrative support, including clerical	11.53	.6	36.9	11.78	.6	39.4	8.89	1.2	22.2
Supervisors, general office	15.95	1.5	39.6	15.94	1.5	39.7	17.19	20.1	27.2
Supervisors, computer equipment operators	20.73	4.7	39.6	20.73	4.7	39.6	–	–	–
Supervisors, financial records processing	17.47	1.9	39.6	17.47	1.9	39.7	–	–	–
Chief communications operators	16.65	6.3	40.5	16.65	6.3	40.5	–	–	–
Supervisors, distribution, scheduling, and adjusting clerks	16.90	3.1	40.3	16.91	3.1	40.5	–	–	–
Computer operators	13.23	2.4	39.0	13.28	2.4	39.5	10.56	15.3	21.5
Peripheral equipment operators	10.44	5.2	39.0	10.48	5.4	39.4	–	–	–
Secretaries	12.83	.9	38.1	12.92	.9	39.2	10.93	2.9	23.8
Stenographers	13.70	3.7	35.7	13.95	4.0	39.0	11.96	7.1	22.2
Typists	11.46	1.9	37.1	11.62	1.9	38.9	9.56	3.3	23.4
Interviewers	9.48	2.0	32.8	9.60	2.3	38.9	8.98	4.6	19.5
Hotel clerks	7.85	3.4	36.6	8.01	3.4	39.2	6.34	3.7	22.4
Transportation ticket and reservation agents	11.64	7.3	36.3	11.88	7.6	39.8	10.20	6.9	24.0
Receptionists	8.93	1.1	34.9	9.16	1.1	39.6	7.70	1.9	21.7
Information clerks, n.e.c.	11.13	3.5	35.5	11.13	3.5	39.2	11.10	11.1	24.7
Classified ad clerks	9.35	13.6	36.1	9.48	15.4	38.5	–	–	–
Correspondence clerks	10.78	5.3	38.4	10.87	5.5	39.7	8.48	11.3	20.2
Order clerks	11.42	1.7	37.8	11.71	1.7	39.7	8.05	2.5	23.9
Personnel clerks, except payroll and timekeeping	12.12	2.1	37.9	12.25	2.2	39.5	9.56	4.3	21.6
Library clerks	10.08	2.2	30.0	10.55	2.8	37.9	8.79	2.8	19.2
File clerks	8.60	2.0	35.1	8.74	2.2	39.3	7.65	4.3	20.4
Records clerks, n.e.c.	10.65	1.2	37.6	10.76	1.2	39.4	9.05	4.3	22.3
Bookkeepers, accounting and auditing clerks ...	11.32	.9	38.3	11.46	1.0	39.5	8.38	3.5	23.1
Payroll and timekeeping clerks	12.35	2.0	38.6	12.44	2.0	39.7	9.06	7.8	20.2
Billing clerks	10.65	1.7	37.9	10.77	1.6	39.7	8.69	8.0	22.2
Cost and rate clerks	11.90	5.8	38.2	11.94	6.0	39.3	–	–	–

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
White collar –Continued									
Administrative support, including clerical –Continued									
Billing, posting, and calculating machine operators	\$8.90	4.9	34.9	\$9.07	5.8	39.5	\$8.10	3.7	22.3
Duplicating machine operators	9.30	4.0	36.6	9.51	4.7	39.1	8.11	5.0	26.4
Mail preparing and paper handling machine operators	8.86	5.2	33.4	9.07	5.9	39.5	7.26	9.4	15.1
Office machine operators, n.e.c.	8.41	6.0	35.8	8.64	6.8	39.4	7.20	5.5	24.6
Telephone operators	11.29	3.8	35.8	11.76	4.0	38.9	7.68	2.7	22.0
Communications equipment operators, n.e.c. ...	9.91	5.2	34.9	10.19	4.5	39.3	–	–	–
Mail clerks, except postal service	8.88	3.1	36.0	9.12	3.7	39.2	7.61	3.0	25.1
Messengers	10.75	9.6	35.9	11.19	9.7	39.1	8.19	7.7	24.4
Dispatchers	12.40	3.4	38.5	12.59	3.4	40.2	8.67	5.4	20.8
Production coordinators	14.13	1.7	38.8	14.27	1.7	40.0	8.91	11.0	18.6
Traffic, shipping and receiving clerks	11.30	2.9	37.7	11.45	3.1	39.9	9.37	7.5	21.9
Stock and inventory clerks	10.70	1.6	36.3	11.09	1.5	39.8	7.49	2.7	21.1
Meter readers	14.15	3.8	39.6	14.20	3.8	40.0	–	–	–
Weighers, measurers, checkers, and samplers	12.62	5.9	37.3	12.77	6.1	40.0	9.46	18.8	15.7
Expeditors	12.54	3.2	38.3	12.82	3.8	40.0	11.23	10.6	32.1
Material recording, scheduling, and distribution clerks, n.e.c.	12.34	3.8	37.4	12.79	4.1	39.9	7.63	4.7	22.5
Insurance adjusters, examiners, and investigators	14.54	2.9	38.9	14.54	2.9	39.2	14.04	21.9	22.8
Investigators and adjusters, except insurance ...	11.77	2.6	37.4	11.97	2.8	39.7	9.21	3.2	21.4
Eligibility clerks, social welfare	12.59	1.9	38.5	12.66	1.9	39.0	9.40	5.0	24.3
Bill and account collectors	10.41	5.7	38.6	10.51	5.7	39.9	8.12	6.8	22.1
General office clerks	10.74	1.0	36.4	11.02	1.0	39.3	8.29	2.6	21.7
Bank tellers	8.63	1.8	32.4	8.79	2.2	39.5	8.11	1.5	20.7
Proofreaders	12.18	13.4	38.0	12.28	13.7	39.8	9.63	11.7	18.2
Data entry keyers	9.76	1.4	37.1	9.96	1.6	39.5	7.98	2.6	24.5
Statistical clerks	11.42	4.3	37.0	11.55	4.5	39.3	9.42	5.4	19.2
Teachers' aides	9.09	1.7	30.6	8.82	1.6	35.7	9.87	4.1	21.7
Administrative support, n.e.c.	11.44	1.6	36.6	11.75	1.7	39.5	8.64	2.7	22.2
Blue collar	12.36	.8	38.3	12.63	.8	40.1	7.71	2.4	21.9
Precision production, craft, and repair	15.86	1.2	39.8	15.91	1.2	40.0	10.65	11.2	22.5
Supervisors, mechanics and repairers	21.57	1.9	40.5	21.58	1.9	40.6	–	–	–
Automobile mechanics	16.62	3.2	40.6	16.62	3.2	40.6	–	–	–
Automobile mechanic apprentices	9.97	7.5	38.4	10.11	7.6	39.6	–	–	–
Bus, truck, and stationary engine mechanics	15.04	2.6	40.1	15.04	2.6	40.2	–	–	–
Aircraft engine mechanics	21.07	4.0	40.0	21.07	4.0	40.0	–	–	–
Small engine repairs	12.31	7.5	37.5	12.63	7.4	39.9	–	–	–
Automobile body and related repairers	15.25	4.6	40.5	15.25	4.6	40.5	–	–	–
Aircraft mechanics, except engine	17.93	5.0	40.1	17.93	5.0	40.1	–	–	–
Heavy equipment mechanics	16.24	3.3	40.0	16.25	3.3	40.1	–	–	–
Industrial machinery repairers	16.06	1.7	39.9	16.06	1.7	40.0	–	–	–
Machinery maintenance	12.72	3.3	40.0	12.73	3.4	40.0	–	–	–
Electronic repairers, communications and industrial equipment	16.48	3.2	39.2	16.59	3.2	39.9	11.10	19.4	20.5
Data processing equipment repairers	15.42	4.6	37.9	14.99	3.7	39.8	–	–	–
Household appliance and power tool repairers	16.44	5.4	38.6	16.59	5.3	40.0	–	–	–
Telephone line installers and repairers	18.39	4.3	39.8	18.38	4.3	40.0	–	–	–
Telephone installers and repairers	17.54	4.1	40.0	17.54	4.1	40.0	–	–	–
Heating, air conditioning, and refrigeration mechanics	15.82	2.7	39.6	15.57	2.3	40.0	–	–	–
Camera, watch, and musical instrument repairers	16.08	10.9	40.0	16.08	10.9	40.0	–	–	–
Locksmiths and safe repairers	16.97	5.3	40.0	16.97	5.3	40.0	–	–	–
Office machine repairers	14.57	4.8	39.5	14.57	4.8	39.5	–	–	–
Mechanical controls and valve repairers	17.53	4.2	39.3	17.65	4.2	39.9	–	–	–
Elevator installers and repairers	19.21	22.1	40.0	19.21	22.1	40.0	–	–	–

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
Blue collar –Continued									
Precision production, craft, and repair –Continued									
Millwrights	\$18.43	5.9	40.1	\$18.43	5.9	40.1	–	–	–
Mechanics and repairers, n.e.c.	15.23	1.6	39.6	15.28	1.6	39.9	\$9.93	10.8	21.1
Supervisors, brickmasons, stonemasons, and tilesetters	17.34	11.7	39.8	17.34	11.7	39.8	–	–	–
Supervisors, carpenters and related workers	20.79	5.5	40.5	20.79	5.5	40.5	–	–	–
Supervisors, electricians and power transmission installers	22.25	5.0	40.0	22.25	5.0	40.0	–	–	–
Supervisors, painters, paperhangers, and plasterers	17.97	3.6	40.0	17.98	3.7	40.0	–	–	–
Supervisors, plumbers, pipefitters, and steamfitters	21.16	9.6	40.2	21.16	9.6	40.2	–	–	–
Supervisors, construction trades, n.e.c.	17.90	3.7	40.5	17.89	3.7	40.5	–	–	–
Brickmasons and stonemasons	15.52	6.3	40.0	15.52	6.3	40.0	–	–	–
Tile setters, hard and soft	15.19	4.2	39.0	–	–	–	–	–	–
Carpet installers	20.98	8.1	38.8	21.21	7.8	38.8	–	–	–
Carpenters	16.31	2.4	39.5	16.39	2.5	39.8	12.03	8.6	27.8
Carpenter apprentices	12.04	4.7	40.0	12.05	4.7	40.0	–	–	–
Drywall installers	14.12	3.4	40.1	14.09	3.3	40.3	–	–	–
Electricians	18.31	2.0	40.0	18.31	2.0	40.0	–	–	–
Electrician apprentices	12.38	5.2	40.2	12.38	5.2	40.2	–	–	–
Electrical power installers and repairers	21.02	2.7	40.0	21.02	2.7	40.0	–	–	–
Painters, construction and maintenance	13.99	5.8	39.6	14.01	5.8	39.8	–	–	–
Plasterers	15.24	24.8	40.0	15.24	24.8	40.0	–	–	–
Plumbers, pipefitters and steamfitters	18.76	3.0	39.8	18.76	3.0	40.0	–	–	–
Plumber, pipefitter, and steamfitter apprentices	13.33	4.6	40.2	13.33	4.6	40.2	–	–	–
Concrete and terrazzo finishers	13.31	7.2	39.2	13.36	7.5	40.1	–	–	–
Glaziers	16.72	6.5	38.5	16.72	6.5	38.5	–	–	–
Insulation workers	12.74	6.1	35.5	12.91	5.8	37.0	–	–	–
Paving, surfacing, and tamping equipment operators	11.66	19.0	40.1	11.53	18.9	40.1	–	–	–
Roofers	12.54	9.9	34.9	12.54	9.9	34.9	–	–	–
Sheetmetal duct installers	16.67	10.2	39.0	16.67	10.2	39.0	–	–	–
Structural metal workers	15.95	7.6	39.5	15.97	7.8	40.0	–	–	–
Construction trades, n.e.c.	14.54	7.1	39.2	14.55	7.1	39.8	12.94	9.7	14.3
Supervisors, extractive	21.38	8.3	41.3	22.14	6.0	42.3	–	–	–
Drillers, oil well	16.58	2.3	41.3	16.58	2.3	41.3	–	–	–
Mining machine operators	18.27	5.6	40.0	18.27	5.6	40.0	–	–	–
Mining, n.e.c.	19.52	3.8	40.1	19.52	3.8	40.1	–	–	–
Supervisors, production	18.41	2.0	40.7	18.41	2.0	40.7	–	–	–
Tool and die makers	18.52	2.2	40.0	18.53	2.3	40.2	–	–	–
Tool and die maker apprentices	14.46	6.7	39.9	14.46	6.7	39.9	–	–	–
Precision assemblers, metal	15.51	3.0	40.1	15.51	3.0	40.1	–	–	–
Machinists	15.61	3.7	40.0	15.59	3.7	40.2	–	–	–
Machinist apprentices	11.55	6.2	40.0	11.76	6.1	41.5	–	–	–
Boilermakers	17.73	7.8	40.0	17.73	7.8	40.0	–	–	–
Precision grinders, filers, and tool sharpeners ...	15.05	8.1	40.3	15.05	8.1	40.3	–	–	–
Patternmakers and modelmakers, metal	18.78	6.7	40.0	18.78	6.7	40.0	–	–	–
Layout workers	14.66	5.6	40.0	14.66	5.6	40.0	–	–	–
Precious stones and metals workers	8.50	8.1	40.0	8.50	8.1	40.0	–	–	–
Engravers, metal	18.49	9.4	39.8	18.49	9.4	39.8	–	–	–
Sheet metal workers	15.40	4.9	40.0	15.40	4.9	40.0	–	–	–
Sheet metal worker apprentices	13.48	7.9	40.2	13.48	7.9	40.2	–	–	–
Cabinet makers and bench carpenters	10.84	6.8	39.8	10.81	6.8	40.0	–	–	–
Furniture and wood finishers	11.00	2.1	40.0	11.00	2.1	40.0	–	–	–
Tailors	10.24	6.1	37.9	10.58	6.1	39.7	–	–	–
Upholsterers	13.46	5.3	39.5	13.46	5.3	39.5	–	–	–
Hand molders and shapers, except jewelers	14.22	11.2	40.1	14.22	11.2	40.1	–	–	–
Patternmakers, layout workers, and cutters	16.02	15.0	38.0	16.15	15.2	38.5	–	–	–
Optical goods workers	10.94	12.7	39.8	10.94	12.7	39.8	–	–	–
Dental laboratory and medical appliance technicians	13.39	6.4	39.4	13.39	6.4	39.4	–	–	–

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
Blue collar –Continued									
Precision production, craft, and repair –Continued									
Bookbinders	\$13.39	3.9	39.4	\$13.39	3.9	39.4	–	–	–
Electrical and electronic equipment assemblers	9.33	2.3	39.6	9.38	2.2	40.0	\$6.49	5.0	23.7
Miscellaneous precision workers, n.e.c.	14.74	6.4	39.6	14.82	6.4	39.9	–	–	–
Precision food production	10.75	7.4	40.0	10.75	7.4	40.0	–	–	–
Butchers and meat cutters	10.00	4.2	38.7	10.16	4.7	39.9	–	–	–
Bakers	9.36	3.9	35.8	9.70	4.1	39.3	6.80	3.8	21.3
Food batchmakers	8.91	6.5	38.3	9.00	6.9	40.0	–	–	–
Inspectors, testers, and graders	15.76	2.5	40.2	15.79	2.5	40.4	–	–	–
Precision inspectors, testers, and related workers, n.e.c.	18.61	8.7	40.0	18.61	8.7	40.0	–	–	–
Adjusters and calibrators	11.77	12.9	39.7	11.74	13.0	40.0	–	–	–
Water and sewer treatment plant operators	15.13	2.9	39.9	15.14	2.9	40.0	–	–	–
Power plant operators	21.32	2.9	40.0	21.32	2.9	40.0	–	–	–
Stationary engineers	17.67	3.8	39.4	17.65	3.8	39.8	–	–	–
Miscellaneous plant and system operators, n.e.c.	20.23	2.2	40.0	20.23	2.2	40.0	–	–	–
Machine operators, assemblers, and inspectors	11.03	1.1	39.6	11.09	1.1	40.0	6.96	2.5	23.2
Lathe and turning machine set-up operators	13.42	3.7	40.0	13.42	3.7	40.0	–	–	–
Lathe and turning machine operators	12.26	4.4	39.9	12.26	4.4	39.9	–	–	–
Punching and stamping press operators	11.80	3.3	40.0	11.82	3.3	40.1	–	–	–
Rolling machine operators	13.06	8.9	40.2	13.06	8.9	40.2	–	–	–
Drilling and boring machine operators	11.55	9.6	40.0	11.55	9.6	40.0	–	–	–
Grinding, abrading, buffing, and polishing machine operators	10.99	3.0	40.0	11.01	3.0	40.1	–	–	–
Forging machine operators	11.68	4.3	39.9	11.68	4.3	39.9	–	–	–
Numerical control machine operators	12.62	3.5	40.3	12.62	3.5	40.3	–	–	–
Fabricating machine operators, n.e.c.	12.62	2.4	40.0	12.62	2.4	40.0	–	–	–
Molding and casting machine operators	9.82	3.0	39.7	9.91	3.0	39.8	5.71	9.1	32.8
Metal plating machine operators	11.62	3.9	40.3	11.66	3.7	40.6	–	–	–
Heat treating equipment operators	13.26	2.9	40.0	13.26	2.9	40.0	–	–	–
Wood lathe, routing, and planing machine operators	9.77	8.3	40.0	9.77	8.3	40.0	–	–	–
Sawing machine operators	8.96	5.5	39.8	8.95	5.5	40.0	–	–	–
Shaping and jointing machine operators	9.09	6.8	39.9	9.09	6.8	39.9	–	–	–
Nailing and tacking machine operators	9.13	2.4	40.0	9.13	2.4	40.0	–	–	–
Printing press operators	14.67	3.1	39.2	14.68	3.2	39.5	13.51	11.7	24.1
Photoengravers and lithographers	14.51	3.5	38.8	14.62	3.5	39.3	–	–	–
Typesetters and compositors	13.00	5.9	37.3	13.11	6.1	39.3	10.82	10.1	18.4
Winding and twisting machine operators	10.59	6.7	40.1	10.59	6.7	40.2	–	–	–
Knitting, looping, taping, and weaving machine operators	9.15	3.1	40.3	9.15	3.1	40.3	–	–	–
Textile cutting machine operators	9.37	8.2	40.3	9.37	8.2	40.3	–	–	–
Textile sewing machine operators	7.16	3.9	39.4	7.17	4.0	39.8	–	–	–
Shoe machine operators	8.82	8.1	39.9	8.82	8.1	39.9	–	–	–
Pressing machine operators	7.10	3.7	39.7	7.10	3.7	39.7	–	–	–
Laundering and dry cleaning machine operators	7.19	1.5	37.6	7.21	1.6	39.5	6.87	4.6	22.7
Cementing and gluing machine operators	9.86	8.8	40.0	9.86	8.8	40.0	–	–	–
Packaging and filling machine operators	10.07	4.8	39.2	10.10	4.9	40.0	8.87	11.2	20.3
Extruding and forming machine operators	10.76	3.2	39.8	10.76	3.2	39.8	–	–	–
Mixing and blending machine operators	12.57	2.6	40.1	12.57	2.6	40.1	–	–	–
Separating, filtering, and clarifying machine operators	15.26	3.5	39.9	15.26	3.5	39.9	–	–	–
Compressing and compacting machine operators	10.16	3.3	40.0	10.20	3.4	40.7	–	–	–
Painting and paint spraying machine operators	11.53	2.8	40.2	11.53	2.8	40.2	–	–	–
Roasting and baking machine operators, food ..	11.10	9.2	39.5	11.08	9.3	40.0	–	–	–
Washing, cleaning, and pickling machine operators	10.64	7.6	38.1	10.69	7.7	40.8	–	–	–
Folding machine operators	10.95	4.6	39.6	10.95	4.6	39.6	–	–	–
Furnace, kiln, and oven operators, except food ..	12.98	5.5	39.9	12.98	5.5	40.0	–	–	–

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
Blue collar –Continued									
Machine operators, assemblers, and inspectors –Continued									
Crushing and grinding machine operators	\$11.39	5.9	40.0	\$11.39	5.9	40.0	–	–	–
Slicing and cutting machine operators	11.71	5.0	39.8	11.79	5.0	40.0	–	–	–
Photographic process machine operators	10.60	5.0	38.4	10.82	5.0	40.0	\$7.80	13.3	25.3
Miscellaneous machine operators, n.e.c.	11.57	2.4	39.6	11.63	2.4	39.9	6.53	6.3	25.4
Welders and cutters	13.70	1.6	40.1	13.71	1.7	40.1	–	–	–
Solders and braziers	8.54	8.1	40.0	8.54	8.2	40.0	–	–	–
Assemblers	11.15	2.6	39.4	11.26	2.5	40.0	6.19	3.1	23.0
Hand cutting and trimming	8.89	5.8	39.7	8.92	5.8	40.0	–	–	–
Hand molding, casting, and forming	12.03	7.2	39.9	12.06	7.1	40.0	–	–	–
Hand painting, coating, and decorating	10.03	6.2	39.1	10.08	6.3	40.0	–	–	–
Hand engraving and printing	8.13	7.6	40.1	8.13	7.6	40.1	–	–	–
Miscellaneous hand working, n.e.c.	9.50	3.2	38.6	9.62	3.3	39.9	5.45	8.1	18.4
Production inspectors, checkers and examiners	10.68	3.0	39.9	10.69	3.1	40.1	8.18	5.9	22.3
Production testers	11.45	4.2	40.1	11.45	4.2	40.1	–	–	–
Production samplers and weighers	12.51	7.2	40.3	12.51	7.2	40.3	–	–	–
Graders and sorters, except agricultural	8.66	8.3	40.2	8.66	8.3	40.2	–	–	–
Hand inspectors, n.e.c.	9.57	8.1	39.9	9.59	8.1	40.0	–	–	–
Transportation and material moving									
Supervisors, motor vehicle operators	15.12	6.5	41.1	15.13	6.5	41.2	–	–	–
Truck drivers	13.92	1.6	39.9	14.07	1.6	41.9	11.34	6.3	22.4
Driver-sales workers	13.13	4.6	39.0	13.69	4.4	41.7	6.52	7.3	22.3
Bus drivers	12.06	1.9	28.6	12.99	2.3	36.7	10.53	2.6	21.0
Taxicab drivers and chauffeurs	8.00	5.2	31.5	8.42	5.7	39.9	7.00	9.6	21.1
Parking lot attendants	6.81	4.3	26.9	7.54	5.2	39.8	6.04	4.4	20.0
Motor transportation, n.e.c.	8.63	5.2	32.0	9.37	6.0	39.3	6.01	3.2	19.3
Railroad conductors and yardmasters	23.43	7.3	40.5	23.43	7.3	40.5	–	–	–
Locomotive operating	22.51	8.9	40.8	22.51	8.9	40.8	–	–	–
Rail vehicle operators, n.e.c.	19.70	1.9	40.0	19.70	1.9	40.0	–	–	–
Ship captains and mates, except fishing boats ..	16.12	6.9	52.0	16.21	7.1	53.2	–	–	–
Sailors and deckhands	9.20	7.2	48.3	9.18	7.3	48.7	–	–	–
Marine engineers	11.95	21.5	57.3	11.95	21.5	57.3	–	–	–
Supervisors, material moving equipment	18.78	5.9	41.3	18.78	5.9	41.3	–	–	–
Operating engineers	14.94	6.9	40.1	14.94	6.9	40.1	–	–	–
Longshore equipment operators	20.66	8.4	30.1	–	–	–	–	–	–
Hoist and winch operators	11.65	7.9	40.8	11.65	7.9	40.8	–	–	–
Crane and tower operators	15.68	3.5	40.3	15.68	3.5	40.3	–	–	–
Excavating and loading machine operators	13.68	5.2	40.1	13.68	5.2	40.1	–	–	–
Grader, dozer, and scrapper operators	12.97	6.7	40.0	12.97	6.7	40.0	–	–	–
Industrial truck and tractor equipment operators	11.69	1.8	39.6	11.72	1.8	40.0	9.28	7.9	22.4
Miscellaneous material moving equipment operators, n.e.c.	13.90	3.4	36.5	14.18	3.6	39.9	–	–	–
Handlers, equipment cleaners, helpers, and laborers									
Nursery workers	6.65	2.8	38.0	6.74	3.4	40.1	5.76	3.3	25.4
Supervisors, agriculture-related workers	16.56	5.6	40.0	16.53	5.7	40.2	–	–	–
Groundskeepers and gardeners, except farm ...	9.11	3.7	38.1	9.24	4.4	39.8	7.21	3.2	23.6
Animal caretakers, except farm	9.76	8.5	38.1	9.91	8.0	39.6	–	–	–
Inspectors, agricultural products	7.68	5.8	36.5	8.11	9.2	39.8	–	–	–
Supervisors, handlers, equipment cleaners, and laborers, n.e.c.	14.14	2.3	39.9	14.15	2.4	40.4	–	–	–
Helpers, mechanics and repairers	10.95	4.9	39.1	11.01	4.9	40.0	8.44	6.9	19.8
Helpers, construction trades	9.54	2.7	39.5	9.61	2.7	40.1	7.27	10.5	26.3
Helpers, extractive	14.17	13.0	38.4	14.35	13.1	40.0	–	–	–
Construction laborers	10.55	4.5	39.3	10.74	4.6	40.0	6.54	4.6	29.0
Production helpers	9.61	3.6	39.1	9.69	3.6	39.9	7.20	4.6	24.3
Garbage collectors	12.99	11.4	39.4	13.19	11.2	39.7	–	–	–
Stevedores	19.22	4.0	38.8	19.22	4.0	38.9	–	–	–
Stock handlers and baggers	8.25	1.8	29.5	9.66	1.5	39.6	6.12	1.6	21.4

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³
National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
Blue collar—Continued									
Handlers, equipment cleaners, helpers, and laborers—Continued									
Machine feeders and offbearers	\$9.16	2.8	38.8	\$9.19	2.9	39.8	\$8.12	8.9	21.6
Freight, stock, and material handlers, n.e.c.	10.47	2.6	34.5	10.82	2.9	39.9	8.88	1.8	21.4
Garage and service station related	8.68	10.7	32.4	9.34	10.6	38.9	6.63	11.0	21.3
Vehicle washers and equipment cleaners	8.45	4.1	37.1	8.62	4.5	40.1	6.80	6.8	21.1
Hand packers and packagers	8.17	1.8	37.6	8.33	1.9	39.8	6.44	2.7	23.5
Laborers, except construction, n.e.c.	8.94	1.4	37.1	9.19	1.4	39.8	6.76	2.6	23.2
Service	9.09	.8	33.0	9.84	.9	39.1	6.33	.7	20.9
Protective service	13.72	1.6	37.9	14.27	1.6	40.7	7.81	3.0	21.4
Supervisors, firefighters and fire prevention	19.53	3.3	49.0	19.53	3.3	49.0	—	—	—
Supervisors, police and detectives	22.99	3.0	40.2	22.99	3.0	40.2	—	—	—
Supervisors, guards	14.75	8.1	37.3	15.39	7.0	39.4	8.22	14.4	23.8
Fire inspection and fire prevention	17.40	5.4	37.4	17.63	5.4	41.2	—	—	—
Firefighting	14.26	2.6	44.4	14.49	2.3	48.6	6.43	13.7	11.5
Police and detectives, public service	18.71	1.5	39.5	18.79	1.5	40.0	11.39	19.4	19.9
Sheriffs, bailiffs, and other law enforcement officers	15.40	2.5	38.8	15.52	2.5	39.8	11.77	8.8	22.3
Correctional institution officers	13.76	3.9	39.8	13.78	4.0	39.9	10.31	14.3	25.4
Crossing guards	8.51	4.3	17.2	—	—	—	8.23	4.4	16.6
Guards and police, except public service	8.21	2.1	35.1	8.36	2.3	39.4	7.53	3.3	23.6
Protective service, n.e.c.	11.03	4.9	29.4	12.40	5.4	39.5	7.67	9.0	18.0
Food service	6.53	.7	30.2	7.09	.9	38.4	5.42	.8	21.3
Supervisors, food preparation and service	10.81	1.8	38.4	11.08	2.0	40.5	7.47	3.2	23.6
Bartenders	5.98	3.4	29.3	6.53	3.8	37.7	5.17	4.9	22.1
Waiters and waitresses	4.04	4.5	29.2	4.29	4.6	38.0	3.58	2.3	20.8
Cooks	8.25	1.0	34.0	8.55	1.1	38.3	7.13	1.9	24.0
Food counter, fountain, and related	5.94	1.4	25.5	6.38	2.7	37.2	5.58	1.3	20.4
Kitchen workers, food preparation	7.42	1.2	30.5	7.91	1.6	38.6	6.53	1.5	22.1
Waiters/Waitresses' assistants	5.40	2.6	27.4	5.83	3.6	38.0	4.87	2.7	20.4
Food preparation, n.e.c.	6.55	1.5	29.8	6.87	3.4	38.4	5.97	1.4	21.1
Health service	8.45	.7	33.7	8.55	.9	38.8	7.92	1.1	20.7
Dental assistants	10.14	4.2	33.6	10.10	4.5	39.9	10.66	7.9	11.2
Health aides, except nursing	9.50	1.2	33.5	9.66	1.3	39.0	8.59	2.6	18.9
Nursing aides, orderlies and attendants	8.15	.9	33.7	8.23	.9	38.7	7.76	1.2	21.2
Cleaning and building service	8.66	1.0	35.0	9.02	1.1	39.4	6.60	1.3	21.5
Supervisors, cleaning and building service workers	10.78	9.6	39.5	10.87	10.1	40.0	7.66	3.9	26.6
Maids and housemen	7.07	1.8	34.8	7.13	2.0	38.6	6.67	2.4	20.9
Janitors and cleaners	8.72	1.1	34.5	9.16	1.2	39.5	6.56	1.4	21.5
Pest control	10.72	8.8	42.2	10.99	8.5	43.9	—	—	—

See footnotes at end of table.

Table 3. Mean hourly earnings¹ and weekly hours for selected occupations, full-time and part-time workers,² United States,³ National Compensation Survey, August 1997—Continued

Occupation ⁴	Total			Full time			Part time		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)		Mean	Relative error ⁵ (percent)	
Service —Continued									
Personal service	\$8.74	1.4	29.8	\$9.54	2.0	37.6	\$6.67	3.0	19.4
Supervisors, personal service	16.62	1.7	38.7	—	—	—	8.07	11.3	17.9
Hairdressers and cosmetologists	—	—	—	—	—	—	7.46	9.3	24.5
Attendants, amusement, and recreation facilities	6.19	4.4	30.6	6.43	4.3	39.6	5.67	5.0	20.4
Guides	8.79	10.6	26.6	10.08	14.0	39.6	7.18	8.4	18.8
Ushers	5.97	3.1	18.4	—	—	—	5.88	4.0	14.8
Public transportation attendants	21.73	7.5	23.1	23.16	6.6	23.3	9.64	14.4	21.1
Baggage porters and bellhops	6.90	6.4	35.6	6.38	6.2	39.5	9.48	15.6	23.9
Welfare service aides	7.13	6.8	27.5	8.09	3.8	38.8	5.90	8.4	20.1
Early childhood teachers' assistants	7.65	2.1	28.6	8.01	2.5	37.2	6.92	2.8	19.4
Child care workers, n.e.c.	8.28	2.2	26.3	8.70	3.2	38.7	7.73	3.2	18.6
Service, n.e.c.	7.24	8.2	31.4	7.30	10.5	39.1	7.03	5.3	18.4

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

² All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ This survey only covers the 48 contiguous States.

⁴ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁵ The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate. For more information about RSEs see the Technical Note.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria, and n.e.c. means "not elsewhere classified." Overall occupational groups may include data for categories not shown separately.

Technical Note

The data in this report are based on the National Compensation Survey (NCS) conducted by the Bureau of Labor Statistics. The National Compensation Surveys are locality-based and cover establishments in private industry and State and local governments. Agriculture, private households, and the Federal Government are excluded from the scope of the survey.

Survey scope. The NCS studied 16,046 establishments with 50 or more workers,¹ representing nearly 67 million workers within the scope of the survey. (See appendix table 1.) For purposes of this survey an establishment is an economic unit that produces goods or services, a central administrative office, or an auxiliary unit providing support services to a company. For private industries in this survey, the establishment is usually at a single physical location. For State and local governments, an establishment is defined as all locations of a government entity.

Sampling frame. The list of establishments from which the survey sample was selected (sampling frame) was developed from the State unemployment insurance reports. The reference month for the public sector is June 1994. Due to the volatility of industries within the private sector, sampling frames were developed using the most recent month of reference available at the time the sample was selected. The reference month for the private sector is March 1996. The sampling frame was reviewed prior to the survey and, when necessary, missing establishments were added, out-of-business and out-of-scope establishments were removed, and addresses, employment levels, industry classification, and other information were updated.

Sample design and data collection. The sample for this survey was selected using a three stage design. The first stage consisted of the selection of areas. The NCS sample consists of 149 areas and nonmetropolitan counties that represent the Nation's 326 metropolitan statistical areas (as defined by the Office of Management and Budget) and the remaining portions of the 48 contiguous States. Metropolitan areas are defined as Metropolitan Statistical Areas (MSA), Primary Metropolitan Statistical Areas (PMSA), and Consolidated Metropolitan Statistical Areas (CMSA) as defined by the Office of Management and Budget, 1994. Nonmetropolitan areas are counties that do not fit the metropolitan area definition.

In the second stage, the sample of establishments was drawn by first stratifying the sampling frame by industry and ownership. The number of sample establishments allocated

to each stratum is approximately proportional to the stratum employment. Each sampled establishment is selected within a stratum with a probability proportional to its employment. Use of this technique means that the larger an establishment's employment, the greater its chance of selection. Weights were applied to each establishment when the data were tabulated so that it represents similar units (by industry and employment size) in the economy which were not selected for collection.

The third stage of sample selection was a probability sample of occupations within a sampled establishment. Collection was conducted between October 1996 and July 1998 with an average reference period of August 1997.

Occupational selection and classification. Identification of the occupations for which wage data were collected was a four-step process:

1. Probability-proportional-to-size selection of establishment jobs
2. Classification of jobs into occupations based on the Census of Population system
3. Characterization of jobs as full-time v. part-time, union v. nonunion, and time v. incentive
4. Determination of the level of work of each job

For each occupation, wage data were collected for those workers who met all the criteria identified in the last three steps. Special procedures were developed for jobs for which a correct classification or level could not be determined.

In step one, the jobs to be sampled were selected at each establishment by the BLS field economist during a personal visit. A complete list of employees was used for sampling, with each selected worker representing a job within the establishment. As with the selection of establishments, the selection of a job was based on probability proportional to its size in the establishment. The greater the number of people working in a job in the establishment, the greater its chance of selection.

The second step of the process entailed classifying the selected jobs into occupations based on their duties. The National Compensation Survey occupational classification system is based on the 1990 Census of Population. A selected job may fall into any one of about 480 occupational classifications, from accountant to wood lathe operator. In cases where a job's duties overlapped two or more census classification codes, the duties used to set the wage level were used to classify the job. Classification by primary duties was the fallback.

¹ Establishments classified as employing between 50 and 99 workers may include establishments with fewer than 50 workers because staff reductions may have taken place between the time of sampling and the time of data collection.

In step three, certain other job characteristics of the chosen workers were identified. First, the worker was identified as holding either a full-time or part-time job, based on the establishment's definition of those terms. Then the worker was classified as having a time versus incentive job, depending on whether any part of pay was directly based on the actual production of the workers, rather than solely on hours worked. Finally, the worker was identified as being in a union job or a nonunion job.

Data reliability. The data in this summary are estimates from a scientifically selected probability sample. There are two types of errors possible in an estimate based on a sample survey, sampling and nonsampling.

Sampling errors occur because observations come only from a sample and not from an entire population. The sample used for this survey is one of a number of possible samples of the same size that could have been selected using the sample design. Estimates derived from the different samples would differ from each other.

A measure of the variation among these differing estimates is called the standard error or sampling error. It indicates the precision with which an estimate from a particular sample approximates the average result of all possible samples. The relative standard error (RSE) is the standard error divided by the estimate. Tables 1, 2, and 3 contain RSE data for indicated series in this report.

The standard error can be used to calculate a "confidence interval" around a sample estimate. As an example, table 1 shows that mean hourly earnings for all workers was \$15.09 per hour and a relative standard error of 0.6 percent for this estimate. At the 90-percent level, the confidence interval for this estimate is \$15.24 to \$14.94 (\$15.09 plus and minus 1.645 times 0.6 percent times \$15.09). If all possible samples were selected to estimate the population value, the interval from each sample would include the true population value approximately 90 percent of the time.

Nonsampling errors also affect survey results. They can stem from many sources, such as inability to obtain information for some establishments, difficulties with survey definitions, inability of the respondents to provide correct information, or mistakes in recording or coding the data obtained. A Technical Reinterview Program done in all survey areas will be used in the development of a formal quality assessment process to help compute nonsampling

error. Although they also were not specifically measured, efforts were made to minimize nonsampling errors by the extensive training of field economists who gathered survey data, computer editing of the data, and detailed data review.

Census area divisions. Data are tabulated by census divisions defined as follows: **New England** – Connecticut, Massachusetts, New Hampshire, Maine, Vermont, and Rhode Island; **Middle Atlantic** – New Jersey, New York, and Pennsylvania; **East North Central** – Illinois, Indiana, Michigan, Ohio, and Wisconsin; **West North Central** – Iowa, Kansas, Minnesota, Missouri, North Dakota, South Dakota, and Nebraska; **South Atlantic** – Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; **East South Central** – Alabama, Kentucky, Mississippi, and Tennessee; **West South Central** – Arkansas, Louisiana, Oklahoma, and Texas; **Mountain** – Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah and Nevada; and **Pacific** – Washington, Oregon, California, Hawaii, and Alaska.² Some census divisions include Consolidated Metropolitan Statistical Areas (CMSAs) that cross State lines.

Additional information about the National Compensation Survey, including a list of occupational classifications and the factors determining work levels, is available by calling (202) 606-6199. You may also write to the Bureau of Labor Statistics at: Division of Compensation Data Analysis and Planning, 2 Massachusetts Ave., NE, Room 4175, Washington, DC 20212-0001, or send E-mail to OCLTINFO@bls.gov.

The data contained in this summary are also available on the Internet's World Wide Web through the BLS site (<http://stats.bls.gov/comhome.htm>). Data are in three formats: An ASCII file containing the published table formats; an ASCII file containing positional columns of data for manipulation as a data base or spreadsheet; and a Portable Document Format (PDF) containing the entire summary.

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² Although Alaska and Hawaii are included in the Pacific Census Division, the 1997 NCS excluded these States.

Appendix table 1. **Number of workers¹ represented by the survey, by occupational group,² United States,³ National Compensation Survey, August 1997**

Occupational group	All industries	Private industry	State and local government
All	66,970,235	52,053,375	14,916,860
All excluding sales	62,159,875	47,301,138	14,858,737
White collar	35,582,750	25,477,489	10,105,261
White collar excluding sales	30,772,390	20,725,252	10,047,138
Professional specialty and technical	13,598,199	7,732,452	5,865,748
Professional specialty occupations	10,825,206	5,459,993	5,365,213
Technical occupations	2,772,993	2,272,459	500,534
Executive, administrative, and managerial	5,682,745	4,365,907	1,316,838
Sales	4,810,360	4,752,237	58,123
Administrative support, including clerical	11,491,445	8,626,892	2,864,553
Blue collar	18,852,080	17,331,079	1,521,001
Precision production, craft, and repair	5,332,082	4,734,519	597,564
Machine operators, assemblers, and inspectors	6,017,986	5,981,584	36,402
Transportation and material moving	2,629,698	2,102,584	527,113
Handlers, equipment cleaners, helpers, and laborers	4,872,314	4,512,391	359,922
Service	12,535,405	9,244,807	3,290,598

¹ Estimates of the number of workers provide a description of size and composition of the labor force included in the survey. Estimates are not intended, however, for comparison with other statistical series to measure employment trends or levels. Both full-time and part-time workers were included in the survey.

² A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ This survey only covers the 48 contiguous States.